US005548659A

United States Patent [19]

Okamoto

[11] Patent Number: 5,548,659

[45] Date of Patent: Aug. 20, 1996

[54] **METHOD AND APPARATUS FOR DETECTING CHANGES IN DYNAMIC IMAGES**

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[21] Appl. No.: **312,049**

[22] Filed: **Sep. 23, 1994**

Related U.S. Application Data

[63] Continuation of Ser. No. 997,556, Dec. 28, 1992, abandoned.

[30] **Foreign Application Priority Data**

Dec. 27, 1991 [JP] Japan 3-345813

[51] **Int. Cl.**[6] **G06K 9/00**

[52] **U.S. Cl.** **382/107**; 348/155

[58] **Field of Search** 382/130, 275, 382/294, 276, 107, 254; 348/154, 155, 700

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[57] **ABSTRACT**

A method and apparatus for detecting changes in dynamic images. The method and apparatus are capable of detecting movement at a high precision of a moving object against a static background, regardless of the variation of the image taking environmental condition, such as a lighting condition. In the apparatus, input images of a moving object are taken against a static background sequentially, and difference images are obtained from successive ones of the input images. Then, an appropriate noise model for a lightness variation due to an image taking environmental condition under which the input images are taken is estimated according to the input images and the difference images. Changed regions in an entire imaging view field are detected according to the input images, the difference images, and the appropriate noise model.

16 Claims, 3 Drawing Sheets